

### **Remarks**

The Applicants have amended the Specification to correct several minor typographical errors.

The Applicants have amended Claim 10 to clarify that the cereal grain flour, at least one polymer and optional additive(s) are the same as those recited in Claim 1, from which Claim 10 depends.

The Applicants have added new Claims 16 – 18. New Claim 16 is the same as Claim 1 except that “treatment” has been changed to --gelatinization, destructuring or surface modification of starch in the cereal grain flour--. New Claim 17 depends from Claim 1 and recites that the polymer is not chemically modified. New Claim 18 depends from Claim 1 and recites that the polymer does not have functional groups which react with hydroxyl groups of starch or proteins in the cereal grain flour. Support for all of Claims 16 – 18 may be found in Claim 1 and in the last paragraph of page 4 of the Specification. Entry into the Official File and consideration on the merits is respectfully requested.

The Applicants acknowledge the rejection of Claims 1 – 9, 14 and 15 under 35 U.S.C. §112.

The Applicants note with appreciation the Examiner’s helpful and detailed comments concerning the phrase “which is not subject to treatment”. The Applicants respectfully submit that this phrase is quite definite despite its apparent breadth. In that regard, the Applicants note with appreciation the Examiner’s frank acknowledgment that the phrase is supported in the Specification and provides three specific examples of such treatment, those examples being gelatinization, destructuring and surface modification of the starches.

The Applicants respectfully submit that “treatment” is a common term to those of ordinary skill in the art as well as to those of less than ordinary skill in the art. The Applicants have taken the

additional step of providing three specific examples of treatment and identified them in the Specification. There is no requirement that all potential examples of a term be supplied in the Specification.

What is required is that the term, the description of that term and/or the examples given sufficiently define that term to those of ordinary skill in the art. The Applicants' Specification does just that.

The Applicants submit the dictionary definition of "treatment" for the Examiner's consideration. By reference to the appropriate definition, it is readily seen that the term "treatment" depends almost completely on the definition of "treat." In that regard, the Applicants invite the Examiner's attention to the relevant definition of "treat" since there are a number of definitions provided that are clearly outside of the context herein. Specifically, "treat" is defined as "to act upon with some agent esp. to improve or alter." The Applicants respectfully submit that this definition is crystal clear to those of ordinary skill in the art. The act of treating merely requires that some agent be applied to or act upon the material to be treated to improve or alter the material.

Agents are well known to those of ordinary skill in the art. Such agents could be used to perform, for example, gelatinization, destructuring or surface modification of the starches. Other agents could be selected to treat the target material, in this case the target material being a cereal grain flour.

It should also be noted that the language of the claim is quite clear as to what has been treated and what has not been treated and what the term "treatment" should be applied to. It is readily apparent from reading the Specification that the treatment does not include the drying, sifting and turbo-separation applied to the biodegradable material. The treatment referred to in Claim 1 is in conjunction with the cereal grain flour, not the polymer and not the overall biodegradable material. Therefore, it is readily apparent to those of ordinary skill in the art that the resulting biodegradable

material can be subjected to any number of treatments. It is the cereal grain flour, taken individually, that is not subject to treatment. The Applicants accordingly respectfully request withdrawal of the 35 U.S.C. §112 rejection inasmuch as the term “treatment” is quite definite in the context of the Applicants’ Specification and in the context of the clear and ordinary dictionary definition of the term.

The Applicants acknowledge the 35 U.S.C. §103 rejection of Claims 1 – 9, 14 and 15 over Lim or Suominen. As noted by the Examiner’s helpful comments with respect to Lim, the Applicants’ position is that the cereal lipids that are extracted with a solvent from the cereal grains of Lim is a type of treatment as recited in Claim 1. While the Applicants readily acknowledge that solvent extraction of the lipids of Lim from cereal grains is not identified as being an example of a treatment in the Applicants’ Specification, this does not in any way mean that such solvent extraction is not a treatment.


The Applicants respectfully submit that it is clear from the ordinary meaning of “extract” that such a solvent extraction of lipids from the Lim cereal grains is, in fact, a type of treatment. In that regard, the Applicants enclose the ordinary dictionary definition of “extract.” The Applicants specifically invite the Examiner’s attention to the second definition, which states “to withdraw (as a juice or fraction) by physical or chemical process; *also*: to treat with a solvent so as to remove a soluble substance.” The Applicants respectfully submit that it is clear on its face that extraction is, in fact, treatment. The dictionary actually uses the word “treat” in conjunction with “extract.” The Applicants, therefore, respectfully submit that the solvent extraction of lipids from Lim cereal grains falls within the ordinary definition of treatment which is excluded by the Applicants’ Claim 1. The Applicants accordingly respectfully request withdrawal of the rejection as it applies to Lim.

With respect to Suominen, the Applicants again note with appreciation the Examiner's helpful and detailed comments regarding the apparent lack of applicability of the claimed term "treatment" to the mixing, dividing, emulsifying, separating and forming steps set forth in Column 5 of Suominen. However, what is important is that the enzymes that are applied to the biologically-degradable polymer (cereal flour) are utilized to make the small particles of the biopolymer. What this means is that the biopolymer is "treated" with the enzyme and this results in a "splitting" action to produce the small particle sizes. This is described in detail in Column 6 of Suominen beginning at about line 47 and is mentioned in the Abstract.

Such "splitting" action is exactly the type of treatment that the Applicants have excluded in Claim 1 and provided for by example in the Specification. The Specification specifically provides the example of a treatment including destructuring. The Applicants respectfully submit that a textbook example of "destructuring" is a "splitting" action. Destructuring clearly means to those of ordinary skill in the art some type of change in the structure. A split of one structure into one or more structures clearly is a destructuring. Thus, Claim 1, with its reference to the exclusion of treatments of the type contemplated in Suominen distinguishes over Suominen and the Applicants accordingly respectfully request that the 35 U.S.C. §103 rejection based on Suominen be withdrawn.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

  
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